

America's Dark Secret — The Port Chicago Disaster —

*In 1944, the
Port Chicago
disaster killed
hundreds of
Americans in a
single blast.*

*Was it an
accident or
America's first
atomic weapons
test?*

Extracted from articles written by
Robert L. Allen & Peter Vogel

as published in
THE BLACK SCHOLAR
Journal of Black Studies & Research
Volume 13, Numbers 2, 3
Spring 1982

On the night of 17th July 1944, two transport vessels loading ammunition at the Port Chicago (California) naval base on the Sacramento River were suddenly engulfed in a gigantic explosion. The incredible blast wrecked the naval base and heavily damaged the small town of Port Chicago, located 1.5 miles away. Some 320 American naval personnel were killed instantly. The two ships and the large loading pier were totally annihilated. Several hundred people were injured, and millions of dollars in property damage was caused by the huge blast. Windows were shattered in towns 20 miles away, and the glare of the explosion could be seen in San Francisco, some 35 miles away. It was the worst home-front disaster of World War II. Officially, the world's first atomic test explosion occurred on 16th July 1945 at Alamogordo, New Mexico; but the Port Chicago blast may well have been the world's first atomic detonation, whether accidental or not.

THE SHIP

The *E. A. Bryan*, the ship which exploded at Port Chicago, was a 7,212-ton EC-2 Liberty ship commanded by Captain John L. M. Hendricks of San Pedro, California, and operated by Oliver J. Olson & Co., San Francisco. It was built and launched at the Kaiser Steel shipyard in Richmond, California, in March 1944. She made a maiden voyage to the South Pacific and then was ordered into the US Navy's Alameda Shipyards where the five-ton (10,000-pound maximum load) booms and gear on the no. 1 and no. 5 holds were removed and replaced with 10-ton booms and gear. It then docked at Port Chicago on 13th July 1944. At 8.00 am on 14th July, naval personnel began loading ammunition.

The *E. A. Bryan* had been moored at Port Chicago for four days, taking on ammunition and explosives night and day. Some 98 men of Division Three were hard at work loading the *Bryan*, and by 10.00 pm on 17th July the ship was loaded with some 4,600 tons of munitions including 1,780 tons of high explosives.

The second ship, the *Quinalt Victory*, was brand new; it was preparing for its maiden voyage. The *Quinalt Victory* had moored at Port Chicago at about 6.00 pm on the evening of 17th July. Some 102 men of the Sixth Division, many of whom had only recently arrived at Port Chicago, were busy rigging the ship in preparation for loading of ammunition which was due to begin by midnight.

In addition to the enlisted men present, there were nine Navy officers, 67 members of the crews of the two ships along with an Armed Guard detail of 29 men, five crew members of a Coast Guard fire barge, a Marine sentry and a number of civilian employees. The pier was congested with men, equipment, a locomotive, 16 railroad boxcars, and about 430 tons of bombs and projectiles waiting to be loaded.

Most of the enlisted men, upon first arriving at Port Chicago, were quite fearful of the explosives they were expected to handle. But, over time, many of the men simply accommodated themselves to the work situation by discounting the risk of an explosion. Most men readily accepted the officers' assurances that the bombs could not explode because they had no detonators.

THE EXPLOSION

Just before 10.20 pm, a massive explosion occurred at the pier. To some observers it appeared that two explosions, only a few seconds apart, occurred: a first and smaller blast was felt; this was followed quickly by a cataclysmic explosion as the *E. A. Bryan* went off like one gigantic bomb, sending a column of fire and smoke more than 12,000 feet into the night sky.

Everyone on the pier and aboard the two ships was killed instantly—some 320 men, 200 of whom were black enlisted men. Very few intact bodies were recovered. Another 390 military and civilian personnel were injured, including 226 black enlisted men. This single, stunning disaster accounted for almost one-fifth of all black naval casualties during the whole of World War II. Property damage, military and civilian, was estimated at more than US\$12 million.

The *E. A. Bryan* was literally blown to bits. Very little of its wreckage was ever found. The *Quinalt Victory* was lifted clear out of the water by the blast, turned around and broken into pieces. The largest piece of the *Quinalt Victory* which remained after the explosion was a 65-foot section of the keel, its propeller attached, which protruded from the bay at low tide, 1,000 feet from its original position.

There was at least one 12-ton diesel locomotive operating on the pier at the time of the explosion. Not a single piece of the locomotive car was ever identified: the locomotive simply vanished. In the river stream, several small boats half a mile distant from the pier reported being hit by a 30-foot wall of water.

In an interview, one of the men described his experience of the disaster:

"I was reading a letter from home. Suddenly there were two explosions. The first one knocked me clean off... I

found myself flying toward the wall. I just threw up my hands like this, then I hit the wall. Then the next one came right behind that. Phoom! Knocked me back on the other side. Men were screaming, the lights went out and glass was flying all over the place. I got out to the door. Everybody was...that thing had...the whole building was turned around, caving in. We

were a mile and a half away from the ships. And so the first thing that came to my mind, I said, 'Jesus Christ, the Japs have hit!' I could have sworn they were out there pounding us with warships or bombing us or something. But one of the officers was shouting, 'It's the ships! It's the ships!' So we jumped in one of the trucks and we said, 'Let's go down there, see if we can help.' We got halfway down there on the truck and stopped. Guys were shouting at the driver from the back of the truck, 'Go on down. What the hell are you staying up here for?' The driver says, 'Can't go no further.' See, there wasn't no more dock. Wasn't no railroad. Wasn't no ships. And the water just came right up to...all the way back. The driver couldn't go no further. Just as calm and peaceful. I didn't even see any smoke."

Rescue assistance was rushed from nearby towns and other military bases. The town of Port Chicago was heavily damaged by the explosion but fortunately none of its citizens was killed, although many suffered injuries.

During the night and early morning, the injured were removed to hospitals and many of the black enlisted men were evacuated to nearby stations, mainly to Camp Shoemaker in Oakland. Others remained at Port Chicago to clear away debris and search for what could be found of bodies.

The search for bodies was grim work. One survivor recalled the experience:

"I was there the next morning. We went back to the dock. Man, it was awful; that was a sight. You'd see a shoe with a foot in it, and then you'd remember how you'd joked about who was gonna be the first one out of the hold. You'd see a head floating across the water—just the head—or an arm. Bodies...just awful."

Some 200 black enlisted men volunteered to remain at the base and help with the clean-up operation.

Three days after the disaster, Captain Merrill T. Kinne—officer-in-charge of Port Chicago—issued a statement praising the black enlisted men for their behaviour during the disaster. Stating that the men acquitted themselves with "great credit", he added, "Under those emergency conditions, regular members of our complement and volunteers from Mare Island displayed creditable coolness and bravery."

THE AFTERMATH

Four days after the Port Chicago disaster, on 21st July 1944 a Naval Court of Inquiry was convened to "inquire into the circumstances attending the explosion". The inquiry was to establish the facts of the situation and the Court was to arrive at an opinion concerning the cause or causes of the disaster. The inquiry lasted 39 days and some 125 witnesses were called to testify.

However, only five black witnesses were called to testify—none from the group that would later resist returning to work because of unsafe practices. The Court heard testimony from survivors and eyewitnesses to the explosion, other Port Chicago personnel, ordnance experts, inspectors who checked the ships before loading, and others.

The question of Captain Kinne's tonnage-figures blackboard—and the competition it encouraged—came up during the proceedings. Kinne attempted to justify this as simply an extension of the Navy's procedure of competition in target practice. He contended that it did not negatively impact on safety, and implied that junior officers who said it did, did not know what they were talking about.

The Court also heard testimony concerning the fuelling of the vessels, possible sabotage, defects in the bombs, problems with the winches and other equipment, rough handling by the enlisted men, and organisational problems at Port Chicago.

But the specific cause of the explosion was never officially established by the Court of Inquiry. Anyone in a position to have actually seen what caused the explosion did not live to tell about it.

Although there was testimony before the Court about competition in loading, this was not listed by the Court (or the Judge Advocate) as in any way a cause of the explosion (although the court saw fit to recommend that, in future, "the loading of explosives should never be a matter of competition"—a small slap on the hands of the officers).

Thus, the Court of Inquiry in effect cleared the officers-in-charge of any responsibility for the disaster, and in so far as any human cause was invoked, the burden of blame was laid on the shoulders of the black enlisted men who died in the explosion.

Not a single piece of the locomotive car was ever identified; the locomotive simply vanished. In the river stream, several small boats half a mile distant from the pier reported being hit by a 30-foot wall of water.

THE MUTINY

After the explosion, many of the surviving black sailors were transferred to nearby Camp Shoemaker where they remained until 31st July; then the Fourth and Eighth Divisions were transferred to naval barracks in Vallejo near Mare Island. During this period, the men were assigned barracks duties but no ship-loading was assigned. Another group, the Second Division, which was also at Camp Shoemaker until 31st July, returned to Port Chicago to help with the cleaning up and rebuilding of the base.

Many of the men were in a state of shock, troubled by the vivid memory of the horrible explosion in which so many of their friends had died. All were extremely nervous and jumpy. "Everybody was scared," one survivor recalled. "If somebody dropped a box or slammed a door, people be jumping around like crazy. Everybody was still nervous."

There was no psychiatric counselling or medical screening of the men, except for those who were obviously physically injured. The men's anxiety was probably made worse by the fact that they did not know what caused the explosion. Rumour and speculation were rife. Some thought it was caused by an accident, some suspected sabotage, others did not know what to think. Apparently the men were not informed that the Navy was conducting an investigation. Certainly, none of those who would later be involved in the work stoppage was called to testify at the Court of Inquiry.

The men talked among themselves. They had not yet been ordered back to their regular duty and no one knew what would happen next, but many of them hoped they would be transferred to other stations or to ships.

Many of the survivors expected to be granted survivors' leaves to visit their families before being re-assigned to regular duties. But such leaves were not granted, creating a major grievance. Even men who had been hospitalised with injuries were not granted leaves.

The survivors and new personnel expressed their opposition to returning to loading ammunition, citing the possibility of another explosion. The first confrontation occurred on 9th August. A ship had come into Mare Island to be loaded with ammunition, and the Second, Fourth and Eighth Divisions, 328 men, were ordered out to the loading pier. The great majority of the men balked, and eventually 258 men were arrested and confined for three days on a barge tied to the pier. Officers told the men they faced serious charges, including mutiny for which they could be executed. They were also being threatened by guards with being summarily shot.

In early September, 50 men were selected as the ring-leaders and charged with mutiny. On 24th October 1944, after only 80 minutes of deliberation by a specially-convened military court, all 50 men were found guilty of mutiny. Ten were sentenced to 15 years in prison, 24 sentenced to 12 years, 11 sentenced to 10 years, and five sentenced to eight years. All were to be dishonourably discharged from the Navy.

After a massive outcry over the next year, in January 1946, 47 of the Port Chicago men were released from prison and 'exiled' for one year overseas before returning to their families.

Of the Navy personnel who died in the blast, most—some 200 ammunition-loaders—were black. Indeed, every man handling ammunition at Port Chicago was black, and every commissioned officer was white. This was the standard operating procedure in the segregated Navy at that time.

DEVELOPMENT OF THE URANIUM BOMB

About 400 to 600 pages of reports and memoranda on Port Chicago are held at the Los Alamos (*Manhattan Project*) Laboratories. They were declassified in 1981. The most substantial record of the accident was prepared by US Navy Captain William J. Parsons and transmitted to US Rear Admiral W. R. Purnell, member of the Atomic Bomb Military Policy Committee and Parsons' superior officer.

Parsons is credited with designing the ordnance for the first atomic bomb and bringing it to battle-ready status. He was assigned to Los Alamos and named Deputy Director under J. Robert Oppenheimer and Division Leader for the Ordnance Engineering Division established in June 1943. They developed, designed and constructed the uranium-235 gun-bomb used on Hiroshima. Immediately after the Port Chicago disaster, Captain Parsons was elevated to the rank of Commodore, USN. He was subsequently the bombing officer aboard the B-29, the *Enola Gay*, which dropped the U-235 bomb on Hiroshima. After Hiroshima, Parsons was elevated to the rank of Rear Admiral, US Navy.

Parsons was a member of the LeMay Subcommittee of the Joint Chiefs of Staff which became the Joint Crossroads Committee in 1946. He was Assistant Chief of Naval Operations for Special

Weapons prior to his appointment as Chairperson of the Joint Crossroads Committee which planned the Bikini Atoll tests. He was also Deputy Task Force Commander for Technical Direction of the Bikini tests. Parsons died in 1952.

Specifications for the U-235 gun-bomb used at Hiroshima were complete by February 1944, according to Volume I of the *Manhattan District History*. Hardware for at least three uranium-235 guns was ordered at the end of March 1944.

According to the US Department of Energy Oak Ridge records, 74 kilograms of U-235 was available by December 1943, 93 kg by December 1944 and 289 kg by December 1945. The uranium-235 gun-bomb weighed about 9,000 pounds when assembled.

Effective 1st August 1944, Los Alamos Laboratories were reorganised, all work on the U-235 gun-bomb was curtailed, and efforts were concentrated on the plutonium-239 Nagasaki bomb.

THE GOVERNMENT'S STORY

The US Government claimed that 1,780 tons of high-explosive TNT-equivalent exploded spontaneously at Port Chicago. (This is in contrast to the two previous ship explosions, *Mont Blanc* in Halifax in 1917, and *SS Fort Stikine* in Bombay in 1944, which followed shipboard fires.) The government claimed there was not enough uranium-235 available for a bomb. This is now known to have been a lie, as noted above. According to the declassified Oak Ridge documents, 15.5 kilograms of U-235 is needed for a gun-bomb. The December 1943 inventory was 74 kg of U-235, and in December 1944, six months after Port Chicago, it was 93 kg. If a nuclear weapon was detonated at Port Chicago, it is likely to have been one of the U-235 gun-bombs built after March 1944.

THE EVIDENCE FOR AN ATOMIC EXPLOSION

The force of the blast was greater than the 1,780 tons of high explosives could have caused, when one considers the total disintegration of the ship, the size of the blast crater, the tidal wave, the destruction of the *Quinalt Victory*, the 12-ton locomotive, etc.

This single, stunning disaster accounted for almost one-fifth of all black naval casualties during the whole of World War II.

Eyewitnesses reported "an enormous blinding incandescent". The Navy reported "the first flash was brilliant white", such as is now known to be characteristic of nuclear explosions which achieve several tens of millions of degrees Centigrade in milliseconds. Conventional explosives reach a maximum of 5,000°C and do not give off a white flash except when mixed with magnesium. There was no magnesium on the list of explosives loaded onto the *Bryan*. The white flash occurs with atomic bombs of five kilotons and greater.

The Port Chicago disaster gave rise to a Wilson condensation cloud like those at Bikini—now known to be characteristic of atomic bombs detonated in vapour-laden atmospheres.

The seismic records show a very rapid detonation not characteristic of conventional explosions but the signature of atomic explosions. There was a typical nuclear fire-ball.

THE FILM

The Navy has a film record of the disaster at its Concord Naval Weapons Station. After being challenged, the Navy claimed this was a Hollywood simulation of a miniature explosion. The film shows a typical nuclear explosion, which would have been hard to simulate. According to the Navy, the film was created to support their argument to the US Congress sometime in the 1960s that the remains of the town of Port Chicago be purchased by the Navy and incorporated into the Concord Naval Weapons Station as a buffer zone in the event of another large explosion.

Significantly, the Navy did not claim the film was a re-creation until after it was suggested that the film could be the record of a nuclear detonation. However, Dan Tikalsky, public affairs chief at Concord, told Peter Vogel, writing for *The Black Scholar* magazine, that the film was a nitrate-base film, which would require the film to have been produced prior to 1950 when nitrate-base film was replaced with non-explosive cellulose-base film.

Peter Vogel wrote in the Spring 1982 edition of *The Black Scholar*:

"Based on viewing an edited video copy of that film which was made available to me, I have concluded that the film records, in every detail, the progression of the actual explosion of July 17, 1944 at Port Chicago. For example, early frames of the film suggest a record of the expansion of the Wilson condensation cloud during which the formation of the ball of fire is obscured. Furthermore, the movements exhibited by several large, independent fragments of the explosion over time compared to the speed of the explosion itself are evidence of the very large distances those fragments travelled during the course of the film sequence.

"It is obvious, of course, that only an intentional film record of the blast could have been made since the probability of having, by chance, a motion picture camera rolling and pointed in the right direction at the right time at night is exceedingly remote.

"If the explosion was filmed at the Port Chicago site, it would follow that the explosion was planned and anticipated."

The July 1944 blast caused a crater 66 feet deep, 300 feet wide and 700 feet long in the river bottom. A five-kiloton nuclear bomb on the surface of wet soil creates a crater 53 feet deep and 132 feet in diameter. Some of the blast was absorbed by the ship's hull, so it may have exceeded five kilotons.

Residual radiation exposures in this area are unknown, as Port

Chicago was used also as a decontamination port for ships exposed to nuclear blasts in the Marshall Islands.

Los Alamos Laboratories have an inventory of all munitions loaded onto the *Bryan* before the disaster. For 18th July 1944, there are two empty boxcars, DLW44755 and GN46324, listed with an asterisk. The asterisk refers to a note at the bottom of the page: "Papers showing that these cars were loaded we destroyed, so cars do not show on attach[ed] list." These may have been the cars which carried two parts of the uranium-235 gun.

CONCLUSION

After examination of the historical evidence, the testimonials of survivors and eyewitnesses, the subsequent investigations as well as the film record, it is hard *not* to reach the conclusion that the blast at Port Chicago was in fact an atomic explosion—which, if so, would make it the world's first atomic detonation.

What really needs to be investigated further is whether or not this device was deliberately detonated by the military, using low-ranking (black) personnel as guinea pigs to test its effects.

PRIMARY SOURCES OF HISTORY

There are two primary sources, *The Los Alamos Project, Volumes I and II* (distribution, 1961), which contains the official history of the *Manhattan Project*, code-name for the atomic bomb program in World War II, and a Los Alamos declassified document entitled "History of the 10,000-ton Gadget", which dates from about September 1944.

Manhattan District History—Project Y: The Los Alamos Project, Volumes I and II, LAMS-2532, Los Alamos, Paragraph 11:20, refers to work accomplished at Los Alamos following 1st August 1944 in describing the process of an atomic explosion. It is almost identical with the Los Alamos document, "History of the 10,000-ton Gadget", procured by Peter Vogel, a Santa Fe historian. Both appear to describe an actual nuclear explosion. Joseph O. Hirschfelder (later of University of Wisconsin at Madison) was director of the project at Los

Alamos. Paragraph 11:20 of the *Manhattan District History* (supposedly prepared in November 1944) reads:

"Much more extensive investigation of the behavior and effects of a nuclear explosion were made during this period than had been possible before, tracing the history of the process from the initial expansion of the active material and tamper [Tuballoy, an inert neutron-reflective material] through the final stages. These investigations included the formation of the shock wave in the air, the radiation history of the early stages of the explosion, the formation of the 'ball of fire', the attenuation of the blast wave in air at greater distances, and the effects of blasts and radiations of [sic.] human beings and structures. General responsibility for this work was given to Group T-7, with the advice and assistance of [the British Mission consultant] W. G. Penney."

Los Alamos Laboratories Theoretical Division Group T-7 (Damage) was formed in November 1944 and had been the former Group O-5 (Calculations) of the Ordnance Division. As was noted, William Parsons was the Division Leader for Ordnance. He reported to J. Robert Oppenheimer. Both O-5 and T-7 were headed by Hirschfelder. The responsibility of G-7 was to complete the earlier investigations of damage and of the general phenomenology of a nuclear explosion. ∞

The Navy has a film record of the disaster at its Concord Naval Weapons Station. After being challenged, the Navy claimed this was a Hollywood simulation of a miniature explosion.